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IC - B01D53/34 ; B01D53/36

MC - E31-H01 E32-A02 J01-E02B J01-E02D N03-C N06-A

M3 - [01] C107 C108 C307 C520 C730 C800 C801 C802 C803 C804 C807 M411 M750
M903 M904 M910 N163 N412 N441 N514 Q431 Q436 Q439; R01784-X

[02] C500 C730 C800 C801 C802 C804 C806 C807 M411 M781 M903 M904 M910
N163 Q431 Q436 Q439 Q508 Q509; R01713-R R01713-U

[03] A423 A940 C730 C810 M411 M730 M903 Q421

PA - (MITO) MITSUBISHI HEAVY IND CO LTD

PN - JP5168857 A 19930702 DW199331 B01D53/36 004pp

PR - JP19910333097 19911217

XA - C1993-109940

XIC - B01D-053/34 ; B01D-053/36

AB - J05168857 Redn. of nitrogen oxides in a combustion exhaust gas comprises providing a NOx adsorbent layer upstream of a selective redn. denitrification catalyst layer which uses NH3 as a reducing agent; allowing a combustion exhaust gas to pass through these layers without adding NH3 when the temp. of the combustion exhaust gas from a gas turbine and a boiler is low; and adding NH3 immediately before the denitrification catalyst layer when the temp. of the exhaust gas is high.

- USE/ADVANTAGE - NOx in exhaust gases from gas turbines and boilers can be reduced effectively from the start.

- In an example, reactor consisted of a NOx adsorbent made of mordenite natural zeolite, a thermocouple for measuring gas temp., a device for adding NH3, and a vanadium denitrification catalyst layer using titania support. The exhaust gas from ordinary methane combustion was passed through the reactor. When the temp. of the exhaust gas was below 200 deg.C, NH3 was not added and the NOx was adsorbed by the adsorbent. When the temp. of the gas was above 200 deg.C, NH3 was added and NOx was reduced by the denitrification catalys(Dwg.0/4)

CN - R01784-X R01713-R R01713-U

IW - REDUCE NITROGEN OXIDE COMBUST EXHAUST GAS NITROGEN OXIDE ABSORB LAYER
LOW TEMPERATURE SELECT REDUCE DENITRIFICATION CATALYST ADD AMMONIA
HIGH TEMPERATURE

IKW - REDUCE NITROGEN OXIDE COMBUST EXHAUST GAS NITROGEN OXIDE ABSORB LAYER
LOW TEMPERATURE SELECT REDUCE DENITRIFICATION CATALYST ADD AMMONIA
HIGH TEMPERATURE

NC - 001

OPD - 1991-12-17

ORD - 1993-07-02

PAW - (MITO) MITSUBISHI HEAVY IND CO LTD

TI - Redn. of nitrogen oxide(s) in combustion exhaust gas - by using nitrogen oxide(s) absorbent layer at low temp., and selective redn. denitrification catalyst with added ammonia at high temp.